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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/706,287

11/13/2003

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EXAMINER

ALUNKAL, THOMAS D

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/706,287

Applicant(s)

KUSUNOKI ET AL.

Examiner

Thomas D. Alunkal

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Double Patenting

Claim 12 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 7. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 13 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 8. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (hereafter Anderson)(US 6,778,205) and in view of Official Notice.

Regarding claim 1, Anderson discloses a recording medium (Figure 3A), comprising a storage layer for storing data (Figure 3A, Element 202); and an indication layer for providing indication information relating to the stored data (Figure 3A, Element 300); wherein the indication information can be written at the indication layer (Figure 3A, Element 302); and at least a portion of the indication information which has been written can be rewritten (Column 4, lines 35-38. More specifically, phase changing material allows for areas of the indication layer to be rewritten); wherein said recording medium is substantially planar and circular in shape (Figure 3B). Anderson does not specifically disclose the means used to attach the labeling layer to the data storage layer. The Examiner is taking Official Notice that it was conventional in the art at the time of the applicant's invention to adhere labeling layers to a medium by lamination.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide a lamination adhering to the recording medium of Anderson, motivation being to securely attach the label layer to the storage layer.

Regarding claim 4, Anderson discloses wherein the indication information is written by irradiating light in a form of an image onto the indication layer (Column 3, lines 7-10).

Regarding claim 5, Anderson discloses wherein the indication layer has a heat recording layer (Figure 3A, Element 302) at which the indication information can be recorded and deleted by a heat treatment (Column 4, lines 35-38. More specifically, phase changing material allows for areas of the indication layer to be rewritten).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (hereafter Anderson)(US 6,778,205) and Official Notice, as applied to claims 1,4, and 5 above, and in further view of Nakano (US PgPub 2001/0008872 A1).

Regarding claim 2, Anderson does not disclose wherein the indication layer includes electronic paper. In the same field of endeavor, Nakano discloses an indication layer which includes electronic paper (Paragraph 0020).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the electronic paper of Nakano to the indication layer of Anderson, motivation being to provide a clearly viewable image or text on the indication layer.

Claims 3 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (hereafter Anderson)(US 6,778,205) and in view of Araki et al. (hereafter Araki)(US PgPub 0103762).

Regarding claim 3, Anderson discloses a recording medium (Figure 3A) comprising a storage layer for storing data (Figure 3A, Element 202); and an indication layer for providing indication information relating to the stored data (Figure 3A, Element 302), wherein the indication information can be written at the indication layer, and at least a portion of the indication information which has been written can be rewritten (Column 4, lines 35-38. More specifically, phase changing material allows for areas of the indication layer to be rewritten). Anderson does not disclose wherein the indication layer has a cholesteric layer and a transparent electrode layer on a light absorbing layer. In the same field of endeavor, Araki discloses a light absorbing layer which has both a cholesteric layer and a transparent electrode (Paragraph 0106).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the light absorbing layer which has both a cholesteric layer and a transparent electrode of Araki to the recording medium of Anderson, motivation being to provide a visible image on the recording medium.

Regarding claim 22, Anderson discloses wherein the storage layer comprises data written in at least one of magnetic and optical form (Figure 1).

Regarding claim 23, Araki discloses wherein the storage layer is read electrically (Figure 17).

Claims 6-7, 9-10, 12, 14-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (hereafter Anderson)(US 6,778,205) and in view of Anderson et al. (US 7,145,586).

Regarding claim 6, Anderson discloses a data writing device (Figure 1) to a recording medium having a storage layer for storing data (Figure 3A, Element 300), and an indication layer for providing indication information relating to the stored data (Figure 3A, Element 202), the device comprising: a storing section storing data at the storage layer of the recording medium (Figure 1, Element 100, 108, and 112a); and a writing section writing, at the indication layer, the indication information which relates to the stored data and which is for indication at the recording medium (Figure 1, Elements 100, 108, and 112a). Anderson does not disclose a detecting section detecting a difference between storage data which is stored at the storage layer of the recording medium, and new data which is to be subsequently stored; and a generating section which, on the basis of results of detection of the detecting section, generates detection data regarding the difference between the data stored at the storage layer and the new data which is to be subsequently stored, and generates indication information which corresponds to the difference, wherein the storing section stores, at the storage layer, the detection data regarding the difference, and the writing section writes, at the indication layer, the indication information which corresponds to the difference. In the same field of endeavor, Anderson et al. disclose a detecting section detecting a difference between storage data which is stored at the storage layer of the recording

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medium, and new data which is to be subsequently stored; and a generating section which, on the basis of results of detection of the detecting section, generates detection data regarding the difference between the data stored at the storage layer and the new data which is to be subsequently stored, and generates indication information which corresponds to the difference, wherein the storing section stores, at the storage layer, the detection data regarding the difference, and the writing section writes, at the indication layer, the indication information which corresponds to the difference (Figure 6).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the label updating means Anderson et al. to the data writing device of Anderson, motivation being to accurately display the most current data stored on the medium.

Regarding claims 7 and 12, Anderson discloses wherein the indication information can be written at the indication layer, and at least a portion of the indication information which has been written can be rewritten (Figure 3A, Element 302 and Column 4, lines 35-38. More specifically, phase changing material allows for areas of the indication layer to be rewritten).

Regarding claim 9, Anderson et al. disclose wherein the storing section also stores the indication information at the storage layer (Figure 6, Element 606).

Regarding claim 10, Anderson discloses a data memory section for storing the stored data and the indication information (Figure 1, Element 110 and Column 3, lines

56-65. Here, Anderson discloses that logic (Figure 1, Element 110) may include a combination of hardware, firmware, and/or software).

Regarding claim 14, Anderson et al. disclose wherein the storing section also stores, at the storage layer, the indication information which corresponds to the difference (Figure 6, Element 614).

Regarding claim 15, Anderson et al. disclose a data memory section storing the stored data and the indication information which corresponds to the difference between the data stored at the storage layer and the new data (Figure 7. Memory is inherently provided within).

Method claim 16 is drawn to the method of using the corresponding apparatus claimed in claim 6. Therefore method claim 6 corresponds to apparatus claim 6 and is rejected for the same reasons of obviousness as used above.

Regarding claim 17, Anderson discloses wherein said indication information is generated according to a manner of indication received from an external source (Column 1, lines 31-35).

Regarding claim 18, Anderson discloses wherein said external source is a user (Column 1, lines 31-35).

Regarding claim 19, Anderson et al. disclose writing said indication information to said storage layer of said storage medium (Figure 6, Element 606).

Regarding claim 21, Anderson discloses wherein said storage medium is substantially planar and circular in shape (Figure 3A).

Claims 8, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson and Anderson et al., as applied to claims 6-7, 9-10, 12, 14-19, and 21 above, and in further view of Nakano (US PgPub 2001/0008872 A1).

Regarding claims 8, 13, and 20, Anderson and Anderson et al. do not disclose wherein the indication layer includes electronic paper. In the same field of endeavor, Nakano discloses an indication layer which includes electronic paper (Paragraph 0020).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide electronic paper of Nakano to the indication layer of Anderson and Anderson et al., motivation being to provide a clearly viewable image or text on the indication layer.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tamaoki et al. (US 6,197,460) disclose a rewritable heat sensitive, color image recording medium and image recording method using the same.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Alunkal/
Examiner AU 2627

A handwritten signature in black ink, appearing to read 'WAYNE YOUNG', written over a horizontal line.

SUPERVISORY PATENT EXAMINER

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER